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REPORT
No. 123

AUTHORIZING APPROPRIATIONS DURING FISCAL YEAR 1964 FOR
PROCUREMENT, RESEARCH, DEVELOPMENT, TEST, AND EVAL-
UATION OF AIRCRAFT, MISSILES, AND NAVAL VESSELS FOR THE
ARMED FORCES

APRIL 9, 1963.—Ordered to be printed

Mr. RUSSELL, from the Committee on Armed Services, submitted the
following

R E P O R T

[To accompany H.R. 2440]

The Committee on Armed Services, to whom was referred the bill (H.R. 2440) to authorize appropriations during fiscal year 1964 for procurement, research, development, test, and evaluation of aircraft, missiles, and naval vessels for the Armed Forces, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert an amendment in the nature of a substitute.

EXPLANATION OF AMENDMENT

The authorization of appropriations recommended by the committee is \$211,203,000 less than that sought by the Department of Defense and \$708,900,000 less than that contained in H.R. 2440 as it was referred to the committee. The reductions are selective ones that affect several figures within the bill. To avoid a multiplicity of amendments, the changes recommended by the committee are reflected in substitute text instead of in several separate amendments.

Additional information regarding the substance of the amendment appears throughout this report in the portions relating to the programs involved.

AUTHORIZATIONS FOR AIRCRAFT, MISSILES, NAVAL VESSELS

PURPOSE

This bill would authorize appropriations during fiscal year 1964 for procurement, research, development, test, and evaluation of aircraft, missiles, and naval vessels for the Armed Forces in the amount of \$15,147,491,000.

The table that follows compares the authorization requested by the Department of Defense, that contained in H.R. 2440 as referred to the committee, and that contained in the committee's recommendations.

[In thousands of dollars]

	Requested, fiscal year 1964	H.R. 2440 as referred to committee	Committee changes to H.R. 2440	H.R. 2440 as reported
Procurement:				
Aircraft:				
Army.....	522,100	522,100	-50,900	471,200
Navy and Marine Corps.....	1,958,700	1,958,700	-127,800	1,830,900
Air Force.....	3,559,000	3,559,000	-230,000	3,329,000
Missiles:				
Army.....	580,700	580,700	+166,000	746,700
Navy.....	1,107,300	1,107,300	-12,200	1,095,100
Marine Corps.....	14,700	14,700		14,700
Air Force.....	2,177,000	2,177,000	-75,800	2,101,200
Naval vessels: Navy.....	2,310,000	2,444,000	-284,400	2,159,600
Subtotal.....	12,229,500	12,363,500	-615,100	11,748,400
Research, development, test, and evaluation:				
Aircraft:				
Army.....	82,148	82,148	-2,400	79,748
Navy and Marine Corps.....	204,183	204,183	-6,100	198,083
Air Force.....	322,986	686,686	-9,700	676,986
Missiles:				
Army.....	576,601	576,601	-17,300	559,301
Navy and Marine Corps.....	590,133	590,133	-17,700	572,433
Air Force.....	1,060,132	1,060,132	-31,800	1,028,332
Naval vessels: Navy.....	293,008	293,008	-8,800	284,208
Subtotal.....	3,129,191	3,492,891	-93,800	3,399,091
Total.....	15,358,691	15,856,391	-708,900	15,147,491

BACKGROUND

An authorization of the type involved in this bill complies with a requirement enacted in 1959 as section 412(b) of Public Law 86-149, as amended in 1962 by Public Law 87-436. Before approval of such an authorization requirement, the Department of Defense sought annual appropriations for procurement and research and development on the basis of continuing authorizations that in practical effect were virtually without limitation. The earlier practice resulted in the Committees on Armed Services not participating in annual reviews of fundamental decisions affecting the major weapons which our Armed Forces are now being furnished and with which they will be equipped in the future. This result obviously was inconsistent with the specialization or division of labor contemplated by the rules of both Houses.

It should be noted that the authorization of appropriations contained in this bill does not include all procurement or all research and development by the Armed Forces, but only that involving aircraft, missiles, and naval vessels. In the field of procurement, for example, the 1964 program involves total obligational authority of \$17,672,800,-

000 and new obligational authority (appropriation) of \$16,724,800,000. For such a program, authorization of \$12,229,500,000 was required to accommodate the Department's recommendations. The committee has provided an authorization of \$11,748,400,000 for this purpose. Similarly, the 1964 program of research, development, test, and evaluation that involves total obligational authority of \$7,370,000,000 and new obligational authority (appropriation) of \$7,262,000,000, needed an authorization of \$3,129,191,000 to accomplish the Department's program. For this purpose, the authorization recommended by the committee is \$3,399,091,000.

It is obvious that the authorization contained in this bill is less than one-third of the \$52,180,600,000 in new obligational authority requested for the operations of the Department of Defense in 1964. The difference is represented by activities not requiring annual authorization of appropriations such as operation and maintenance, pay of military personnel, and procurement and research programs other than those relating to aircraft, missiles, and naval vessels. Even the programs for which this bill would authorize appropriations will be subject to another review by the Committees on Appropriations in their deliberations on the part of this authorization that will be funded.

COMMITTEE ACTION AND VIEWS

In the form reported by the committee the bill would authorize appropriations of \$708,900,000 less than the House bill and \$211,200,000 less than the request of the Department of Defense. Since the committee recommendations include \$363,700,000 for development of the RS-70 weapon system and \$196,000,000 for NIKE-ZEUS not requested by the Department of Defense, the Defense program was reduced by \$770,900,000. A reduction of this amount was accomplished by applying a uniform 3-percent reduction in the amount sought for research, development, test, and evaluation, by a 3-percent cut in certain support areas such as spare parts and modifications, and by selectively reducing the proposed procurement quantities of specified aircraft, missiles, and ships.

In research and development, the committee intent is not that the program have less effort and stress. The decrease is meant to encourage an extremely careful management and administration of the several projects. This is an area in which estimated costs can be subject to wide fluctuation and in which there are frequent shifts in emphasis. The committee is confident that a reduction of this limited amount will not unwisely inhibit our efforts to find better weapons and in this belief it is reinforced by the recognition that defense appropriations acts now contain emergency funds for use by the Secretary of Defense and authority to transfer other funds to research and development programs as breakthroughs occur.

The cut in spares, modifications, and other support items was based in part on an examination of reprogramming actions submitted to the committee. In these reprogramming actions, funds for the increased procurement of weapons often are indicated as having been made available by the recalculation of requirements and refinements of estimates in the spares, modifications, and support accounts.

Diminution of recommended procurement quantities for selected aircraft, missiles, and ships was made after consideration of quantities on hand, those financed and on order, and the new procurement proposed in this field. With the exception of perhaps the motor gunboats, reduction in these items is not meant to constitute a disapproval of the procurement program proposed, but rather it is intended as an extension of the period over which the weapons would be acquired. Calculation of requirements is not an exact science and in the field of the general purpose forces, particularly, it tends to become subject to some imponderables. At every level within the Department of Defense, evaluations and, frequently, reductions are made in estimated requirements as submitted for approval to higher echelons. At the level of Secretary of Defense, the total for 1964 that was asked by the services and the Defense agencies was \$67 billion. These requests were reduced by \$13.3 billion. The committee will not concede that the programs submitted to the Congress are immutable or that the Congress is precluded from expressing its judgment on determination of requirements and on force levels.

The committee action, then, is not to be considered as a repudiation of any program or of any weapon. Instead, it reflects a belief that the reductions suggested can be accomplished without taking chances with the national security.

RS-70

The question of whether to proceed with an advanced development of the RS-70 weapon system is one on which the Congress and the executive branch have disagreed. House Report No. 62, accompanying H.R. 2440, contains an impressive treatment of the background and nature of this disagreement. In summary, the Department of Defense is proceeding with an RS-70 development program that will produce three prototype airplanes, but without important subsystems that would be required to make a weapons system of the RS-70. The Department requested no additional funds in the 1964 authorization for further work on the RS-70, but it intends to apply \$81 million of available funds to the completion of the three prototype programs.

The House added \$363,700,000 to the amount requested for research, development, test, and evaluation of Air Force aircraft and specified that this addition was authorized only for research, development, and test of the RS-70. The additional \$363.7 million was intended for two additional prototypes with their supporting subsystems in order that the development of the RS-70 could proceed to the point where the feasibility of the aircraft as a weapon system could be proved or disproved. The amount added for 1964 would be but part of an additional \$1,070 million required for ultimate completion of the two additional prototypes with the required supporting systems. A superficial examination would cause one to think that each of the fourth and fifth prototypes would cost more than \$500 million. This is not true—for much of the additional cost would be required in the development of the supporting systems, such as the strike missile and highly sophisticated radar and processing systems.

The committee has concurred in the House recommendation for a further development of the RS-70, although it recognizes that the executive branch is unlikely to obligate appropriations that may be based on this authorization unless the Department of Defense changes its views on the subject. In any event, the Congress will have discharged its responsibility—to provide the authorization and funds for weapons that may be needed for national defense. The committee has a profound misgiving about abandoning manned aircraft and about concentrating our retaliatory power in missiles, despite the recognized destructive power of these missiles if they survive an enemy attack and if they are fired successfully. The reconnaissance strike capability in an aircraft of the RS-70 type offers significant advantages of versatility and of requiring diversion of defense efforts by an enemy.

NIKE-ZEUS

By a vote of 9 to 8 the committee reconsidered an earlier vote and adopted an amendment adding \$196 million to the Army missile procurement authorization. The original vote was nine to four against the amendment. The additional \$196 million is intended to authorize appropriations only for procurement of component parts of the NIKE-ZEUS system.

This amendment, if implemented by corresponding appropriations and action by the executive branch, would permit a start on the initial production and deployment of a ballistic missile defense system. The initial deployment would incorporate improvements involving (1) use of the ZEUS discrimination radar as a high volume lower accuracy target tracker, and (2) modification of the ZEUS missile to reduce the minimum altitude at which an incoming warhead can be intercepted. Later deployments would incorporate (1) a new high acceleration missile (SPRINT), and (2) a new advanced radar that could simultaneously acquire, evaluate, and track a large number of objects.

The Department of Defense proposed deferring a decision to produce and deploy the ZEUS system but proceeding with the development of the new SPRINT missile and the new advanced radar.

The ultimate cost of deploying a ballistic missile defense system under either the recommendations of a majority of the committee or under the recommendations of the Secretary of Defense is the subject of some disagreement. In any event these estimates are considered as classified information at this time. Assuming a decision within the next few years to deploy a system of the type contemplated by the current research program of the Department of Defense, the additional costs involved under the program recommended by a majority of the committee is between \$1.5 and \$2.8 billion.

The issue on this subject was whether the degree of protection afforded by an earlier, interim deployment of a system with recognized limitations during this earlier deployment justifies the additional cost involved and a commitment now to the deployment of a ballistic missile defense system. A majority of the committee recommends

proceeding with production and deployment of a NIKE-ZEUS system incorporating the improvements mentioned above.

DEPARTMENT OF THE ARMY

ARMY—PROCUREMENT

Aircraft-----	\$471, 200, 000
Missiles-----	746, 700, 000
Total-----	1, 217, 900, 000

ARMY AIRCRAFT

The Department of the Army requested authorization of \$522,100,000, for the procurement of 1,598 aircraft, the great preponderance of which are helicopters. The committee has approved authorization of \$471,200,000 for the procurement of 1,485 aircraft.

The committee was informed that the Army aircraft proposed for procurement in 1964 are not intended to expand the Army's air program as contemplated by the so-called Howze Board, which has submitted a study on the role of Army aviation that disregards traditional military doctrine. The Secretary of Defense has approved only a limited test of the concepts advocated by the Howze Board. This test involves the utilization of about 15,000 men in 1964. The principal uses of the aircraft included in the Army's 1964 program are to convert existing Army divisions to the new "ROAD" concept, for training, and for special warfare detachments similar to those in Vietnam. Approval of the 1964 aircraft program does not constitute a commitment to a larger Army air procurement program that would be necessary if recommendations of the Howze Board were fully implemented.

Areas of reduction

The \$50,900,000 reduction in the requested program of \$522,100,000 represents a reduction of 25 IROQUOIS, 10 CHINOOK, 35 observation helicopter, 10 instrument trainer, 10 MOHAWK, 15 primary trainer, and 8 CARIBOU aircraft.

A general description of the aircraft to be procured by the Army follows:

Caribou

This aircraft, designated the CV-2, will be used by the Army as a short takeoff and landing twin-engine transport. Its lift capacity is 3 tons and it can move troops, weapons, equipment, and supplies rapidly within the combat zone.

Chinook

This helicopter, designated as CH-47A, is intended for use as a vertical lift transport for troops, supplies, and weapons. It can carry the Army's solid propellant missiles internally. It also has a 3-ton lift capacity.

Iroquois

This helicopter, designated the UH-1B/D, is a low-silhouette, high-performance type that is powered by a single gas turbine engine. It provides tactical mobility for combat troops and supplies, and battlefield evacuation of casualties.

Observation helicopter

Two types of helicopters, the OH-13 (Sioux) and OH-23 (Raven) are being procured as observation types. These helicopters are of the bubble type, with single rotors and skid landing gears. They are designed for observation and limited vertical lift for short hauls. They can carry two litter patients externally.

Mohawk

The Army's combat surveillance aircraft, designated the OV-1, is an all-metal midwing monoplane, powered by two gas turboprop engines, and manned by a crew of two. It is capable of operating from small unimproved areas.

Training aircraft

For training purposes the Army will procure commercially available models on an off-the-shelf basis. Although these aircraft are different from the military types the trainees will fly later, they are acceptable for training purposes and their procurement is less expensive than specially developed military versions.

ARMY MISSILES

The Army requested \$580,700,000 in authorization of appropriations for missile procurement for fiscal year 1964.

After considering the number of PERSHING missiles already funded and the number sought for 1964, the committee recommended a reduction of \$30 million in this program.

As indicated earlier in this report the committee added \$196 million to the Army missile procurement authorization for the procurement of NIKE-ZEUS components.

The result of these two changes is a recommended Army missile procurement authorization of \$746,700,000.

A general description of the missiles in the Army program follows:

HAWK

The HAWK missile system is required to provide the field army with an effective defense against low and medium altitude supersonic enemy aircraft.

NIKE-HERCULES

This surface-to-air defense missile system is required to support the air defense mission assigned to the Army in defense of critical installations, population and production centers in the United States, elements of the field army, and key oversea installations.

NIKE-ZEUS

This is a missile system to defend against the ballistic missile threat to the United States. If deployed its original deployment would be around population centers.

MAULER

The MAULER system is planned for initial procurement in fiscal year 1964 to provide mobile armor and infantry elements a more effective defense against tactical air attack aircraft and various forms of battlefield ballistic missiles.

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Antitank guided missiles

This is a lightweight, crew-transportable system required to provide an improved armor-defeating capability in forward combat areas against heavy tanks and hardened targets such as bunkers.

HONEST JOHN

The HONEST JOHN is required for close fire support for combat units from division to field army. It provides a nuclear and high explosive capability.

LITTLE JOHN

LITTLE JOHN is a lightweight, highly mobile, free-flight rocket system required for units which need a high degree of mobility such as airborne divisions.

PERSHING

This is a solid-propellant, inertially guided missile system required to provide long-range high-yield fire support for the modern field army.

SERGEANT

This is a solid-propellant, inertially guided, air-transportable missile system required to provide long-range nuclear fire support.

Target missiles

Target missiles are required to provide a supersonic aerial target for surface-to-air missile system training and evaluation.

ARMY—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

Aircraft	\$79,748,000
Missiles	559,301,000
Total	639,049,000

ARMY AIRCRAFT (R.D.T. & E.)

The committee reduced the requested authorization of Army research, development, test, and evaluation on missiles by 3 percent. This reduction amounts to \$2,400,000 from a figure of \$82,148,000 sought for research and development on Army aircraft and a reduction of \$17,300,000 from a requested authorization of \$576,601,000 for research and development on Army missiles.

A description of the various programs in the Army's research, development, test, and evaluation of aircraft and missiles follows:

Air mobility (exploratory development)

This program is for exploratory development efforts in various Army aviation areas. These areas include low-speed aeronautical phenomena, significantly improved propulsion systems, reduction of aircraft vulnerability, aircraft design load criteria, reduction of the detection of Army aircraft, and high performance helicopter evaluation.

Operational evaluation of vertical/short takeoff and landing (V/STOL) concepts

This program includes the Army portion of the triservice vertical/short takeoff and landing transport effort to develop an aircraft suit-

able for operational evaluation. This development may lead to replacement of the Caribou/Chinook team with one VTOL transport.

New surveillance aircraft

A requirement exists to determine the best means of obtaining vertical takeoff and landing (VTOL) and other operational characteristics for a new manned surveillance and target acquisition aircraft for the Army to replace the OV-1 Mohawk. This program involves the development, fabrication, and testing of the jet ejector and turbine driven fans, research aircraft, and the British Hawker P. 1127.

Heavy lift helicopter

The purpose of this program is to test and evaluate a helicopter that has been described as a flying crane to obtain data required to develop a new helicopter that can lift heavy loads weighing 12 tons or more by air.

Aircraft suppressive fire systems and weapons helicopter

The suppressive fire systems program is providing present Army aircraft with a capability for suppression of enemy ground fires as well as an inherent highly mobile limited offensive capability. Such a capability is critically required during the vulnerable takeoff and landing phases of air mobile operations. It is further planned to initiate work on a weapons helicopter specifically designed to furnish integrated weapons-carrying capabilities beyond those already existing in the form of weapons mounted on the current tactical transport helicopters.

Research helicopter program

This is a new follow-on program to current exploratory development tasks in aircraft propulsion systems which will result in the design and flight testing of research helicopters employing new propulsion methods, such as the hot cycle and the rotor blade tip turbine propulsion systems.

Light observation helicopter (LOH)

A requirement exists for a new light observation helicopter to replace the current inventory of O-1A, OH-13, and OH-23 aircraft. It will be used by small units in forward areas for visual observation, target acquisition, reconnaissance and command control. The LOH will be a small, single-rotor, turbine-powered, light helicopter with 110-knot cruise speed and will carry a pilot and three passengers or 400 pounds payload. As a result of an industrywide design competition three companies are developing prototypes for competitive testing prior to selection of one model for production.

Tactical transport aircraft (Caribou II)

Further development of this aircraft resulted from a design competition for an improved fixed-wing transport for operation in rugged, underdeveloped areas. It will be a twin-engine turboprop aircraft which will land and take off over a 50-foot obstacle in 1,000 feet with a payload of 5 tons.

Supporting developments for air mobility and aircraft engines

These programs include the development of parachutes and related air delivery equipment, field service equipment, and aircraft engines as well as related aircraft support requirements.

Operational systems

RDTE funds are required for the completion of service tests and the correction of deficiencies disclosed during these tests for Mohawk, Iroquois, and Chinook.

ARMY MISSILES (R.D.T. & E.)

SERGEANT

SERGEANT is an inertially guided, single-stage, solid-propellant, surface-to-surface missile system developed to replace the liquid-propellant CORPORAL missile as the Army's 25- to 75-nautical-mile range corps support weapon. The fiscal year 1964 funds will complete test evaluations and make corrections discovered during final testing and initial deployment.

PERSHING

PERSHING is a highly mobile, air-transportable, inertially guided, two-stage, solid-propellant, surface-to-surface missile system developed to replace the REDSTONE. The first PERSHING unit is receiving tactical equipment and is undergoing unit training prior to supporting service tests.

L NCE

This project provides for the development of an economical, lightweight, surface-to-surface missile system for the support of divisions using lightweight, self-propelled launcher. The self-propelled launcher and associated equipment will be capable of sustained ground operations, possess a water-crossing capability, and be transportable in phase I airborne operations. This missile will replace the HONEST JOHN and LACROSSE systems and may replace the LITTLE JOHN system.

NIKE-HERCULES

A mobile, air-transportable, surface-to-air guided missile system which is capable of engaging aerial targets at high altitudes. NIKE-HERCULES normally will be employed in the field army, corps areas, and within the United States to provide air defense for high priority installations and facilities against supersonic aircraft, cruise-type missiles, and short-range tactical ballistic missiles.

HAWK (antitactical ballistic missile)

HAWK normally will be employed in corps and division rear areas to provide air defense for tactical and logistic centers against low-altitude aircraft and cruise-type missiles. The HAWK system's anti-aircraft capabilities are being extended to provide a defense against short-range tactical ballistic missiles.

MAULER

MAULER will defend forward combat elements against short-range tactical ballistic missiles and supersonic, low-flying aircraft. It will consist of missiles and radar fire control equipment mounted on a self-propelled carriage of standard design and will possess a shoot-on-the-move, all-weather, day-and-night capability.

REDEYE

REDEYE is a single man carried and operated guided missile system required to provide air defense against low-flying aircraft in the forward battle area or in isolated battle areas. The system is

lightweight, shoulder fired, and employs an infrared guidance system which gives it the capability of engaging aerial targets. Fiscal year 1964 funds will be needed for continued development of REDEYE.

NIKE-ZEUS

The objective of the NIKE-ZEUS program is to provide a surface-to-air guided missile system capable of defending the United States against the gamut of the ballistic missile threat. The ZEUS system consists of guidance radars, an acquisition radar, precision track radar, ZEUS missiles, and various computing, control and monitoring equipment.

NIKE X

NIKE X is the interim name of an advanced ballistic missile defense system using radar, a high acceleration, quick reacting interceptor missile called SPRINT, and the certain system components developed in the ZEUS program.

Missiles (exploratory development)

This program includes a group of exploratory missile projects which provide for technological advances in missilery. The projects include studies, investigations, and minor developments in specific military problem areas. Examples are: work on component developments for guided missiles, propulsion applied research, guidance and control, solid-propellant motor development, new electronic fuze systems, aerodynamic research and wind tunnel testing.

White Sands Missile Range (WSMR)

This element provides funds for operation and modernization of this national missile range and for procurement of Army laboratory test equipment located at WSMR. WSMR has essentially a service function in that it provides instrumentation and equipment required for data collection and reduction and other services for missile projects from all Government agencies on a nonreimbursable basis.

DEPARTMENT OF THE NAVY

NAVY.—PROCUREMENT

Aircraft: Navy and Marine Corps-----	\$1, 830, 900, 000
Missiles:-----	
Navy-----	1, 095, 100, 000
Marine Corps-----	14, 700, 000
Naval vessels-----	2, 159, 600, 000
Total-----	5, 100, 300, 000

NAVY AIRCRAFT

The bill provides \$1,830,900,000 in authorization for the procurement of aircraft for the Navy and the Marine Corps. This amount is intended to finance the procurement of 644 new aircraft, together with their supporting components and spare parts, the cost of modifying and modernizing aircraft already in inventory, and related items such as aircraft production, tools, facilities, and training equipment.

The Department requested \$1,958,700,000 for the procurement of 681 new aircraft. The committee recommends a reduction of 37 aircraft involving \$127,800,000.

This sum is derived by reducing the amounts requested for modifications and replenishment spares by 3 percent and by reducing the proposed procurement of the following types of aircraft, the numbers indicated:

A-4E	(10)
A-6A	(3)
A-5C	(1)
F-4B	(12)
P-3A	(3)
E-2A	(4)
TC-4B	(4)

A brief description of the aircraft types to be procured follows:

A-4E Skyhawk

Follow-on procurement of the A-4C Skyhawk, the A-4E, will have a lighter, more powerful engine. This plane will have better speed, range, and combat ceiling than its predecessor models. Its relative low cost is a factor in obtaining badly needed increased procurement quantities.

A-6A Intruder

Follow-on procurement of a new jet attack aircraft designed for all-weather penetration and attack in enemy territory, for nuclear or conventional attack, and close support of troops. It is subsonic, long range, and has excellent weapons-carrying capability. A reconnaissance version of the A-6A, the EA-6A, is also being procured to meet Marine Corps requirements.

A-5C Vigilante

The A-5C is an all-weather, supersonic, carrier-based, multisensor, reconnaissance aircraft. It is powered by two jet engines with afterburners, and is configured with an inertial bombing navigation system. This aircraft can carry both conventional and nuclear weapons.

F-4B Phantom

The F-4B is a twin-engine, all-weather, supersonic, carrier fighter, believed superior in performance to any in the world. This aircraft can deliver atomic weapons and conventional bombs as a fighter-bomber. It incorporates the latest developments for the use of air-to-air missiles.

P-3A Orion

A new four-engine, turboprop, land-based plane for ASW. It will replace the P-2H Neptune and will be fitted with the latest integrated airborne antisubmarine systems, homing torpedoes, and nuclear depth bombs.

S-2E Tracker

The S-2E is a carrier-based ASW aircraft powered by two reciprocating engines. It differs basically from earlier models in that it is configured with improved and more sophisticated ASW detecting and tracking equipment, has greater range and on-station endurance.

SH-3A Sea King

The SH-3A is an all-weather, carrier-based ASW helicopter. It is powered by twin turbine engines and has improved detection and attack capabilities.

Vertical assault mission

Marine Corps vertical assault needs are being met by follow-on procurement of the high-speed twin-turbine powered CH-46A (HRB-1) and the CH-53A. The assault support helicopter (ASH), UH-1E, will replace the present obsolete observation fixed-wing and rotary-wing aircraft and provide combat zone observation, reconnaissance, and evacuation.

E-2A Hawkeye

An entirely new carrier-based early warning and interceptor control aircraft, this plane will provide an airborne detection capability against aircraft at all altitudes and a capability to control intercepts in an entirely new order of performance.

U-8F Seminole

The U-8F is a light twin-engine training aircraft to be used for multiengine and instrument training in the Naval Air Training Command. It is an economical, off-the-shelf version of the commercially available models.

T-2B Buckeye

The T-2B is a modernized twin-engine version of the T-2A basic jet trainer featuring twin-engine safety and improved performance over the T-2A. It will at first augment and later replace T-2A aircraft in the Naval Air Training Command.

TC-4B (VRM)

The TC-4B is a minor modification of commercially available turboprop aircraft that is intended for use in the training of student navigators.

UH-2B Seasprite

The UH-2B is a carrier-based search-and-rescue helicopter powered by a single turbine engine. The greater range and increased lifting ability of the UH-2B will provide the fleet with a search-and-rescue aircraft. The UH-2B is equipped with emergency flotation gear.

C-130E Hercules

This is a modification of the Air Force C-130E for airborne communications purposes. It will improve command communications and major area commanders.

NAVY MISSILES

The bill provides authorization for the procurement of Navy missiles in the amount of \$1,095,100,000. The Department had requested \$1,107,300,000. The \$12,200,000 reduction recommended by the committee is intended to be applied to the SUBROC program.

A brief description of the missile types to be procured from this authorization follows.

POLARIS

The preponderant part of the Navy missile authorization is for the procurement of missiles for the POLARIS-type submarines.

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SPARROW III

This is a supersonic air-to-air missile of the all-weather type. It is primary weapon for the F-4B Phantom II fighter. The Navy considers the SPARROW III as its primary all-weather, air-to-air missile, and is enthusiastic about its versatility.

SEAWINDER 1C (IR and SAR)

This is an improved version of the SEAWINDER 1A. It is primary weapon for the F-8E Crusader fighters.

BULLPUP

This is an air-to-surface missile. It is used for the close support of troops. Its commendable features include accuracy, reliability, and its being relatively inexpensive.

BULLPUP training missile

This is a relatively inexpensive, modified version of the operational BULLPUP which will be used in lieu of BULLPUP for training purposes.

SHRIKE

An air-to-surface missile that seeks out enemy weapon systems for destruction.

TARTAR

TARTAR is a surface-to-air missile that is designed for installation on destroyers, escorts, and as a secondary battery on cruisers.

TALOS

This is the largest of the Navy's surface-to-air missiles and it has the longest range. It can carry either a nuclear or a conventional warhead.

TERRIER

This is a surface-to-air missile that is suitable for installation on cruisers, carriers, and frigates. It can accommodate a choice of warheads.

TYPHON

A ship-launched antiaircraft missile, TYPHON is scheduled for initial production in fiscal year 1965. The bill provides funds to cover production costs for motors for qualification and safety tests, special handling equipment, and training material.

SUBROC

This is a new missile used by submarines in antisubmarine warfare. It has a nuclear warhead.

Destroyer antisubmarine helicopter (DASH)

The Drone antisubmarine helicopter will provide destroyers with an ASW weapon delivery system which fully utilizes the capability of advanced shipboard sonar equipments for detection of enemy targets at extended ranges.

MARINE CORPS MISSILES

The bill provides \$14.7 million in authorization for the procurement of Marine Corps missiles that are surface launched. This authorization will be used for the procurement of the HAWK.

NAVY VESSELS

The bill provides \$2,159,600,000 in authorization of appropriations for the construction and conversion of Navy vessels. This authorization is intended to finance the construction of 33 new ships and the conversion of 36 vessels.

The Department of Defense has requested authorization for 41 new ships and 36 conversions involving \$2,310 million. Authorization for two additional nuclear-powered submarines in the amount of \$134 million was added in the House. The committee's reduction of \$150,400,000 from the departmental recommendation is intended to be applied to one LPD, four PGM's, one AOE, and two AGS's. The additional authorization for nuclear-powered attack submarines has been eliminated.

The ships proposed for construction under the committee's recommendations for the 1964 program are as follows:

Six fleet ballistic missile submarines, SSB(N): These 6 fleet ballistic submarines will bring the number of presently planned POLARIS submarines to 41, carrying a total of 656 ballistic missiles. Like the six authorized last year, these are improved versions of the *LaFayette* class. Twelve will have joined the fleet by the end of fiscal year 1963.

One submarine tender, AS(FBM): This tender is designed to provide mobile base facilities and support for ballistic missile submarines. It can furnish logistic support for nine POLARIS submarines and can handle three submarines alongside at one time with a complete range of repair and support services.

This ship is the fourth new construction tender planned for the POLARIS program. Two of this type are already operating in the fleet, the *Proteus* (a conversion) and the new *Hunley*.

Six nuclear-powered submarines, SS(N): The six fleet attack submarines in the program are improved *Thresher*-class ships. Design changes in these ships will provide better depth control at periscope depth and an increase in torpedo reload capability. These ships will also be improvements over the early *Threshers* with respect to quiet operation, ease of maintenance, and habitability.

These submarines constitute a weapons system with a capability several orders of magnitude greater than the conventional submarine in almost every area of combatant capability required to contain and defeat Soviet nuclear submarines.

Because of their unique capabilities, our SSN's will provide the primary forward area attrition against hostile submarines of the near future and the most effective interdiction of the enemy's sea lines of communications in areas of heavy ASW opposition. Ability to maintain the U.S. Navy's global preeminence in seapower will therefore depend heavily on the caliber of our nuclear attack submarine force.

Thirty-nine nuclear-powered attack submarines have been authorized in previous programs, 19 of which will have joined the fleet by the end of this fiscal year.

Three amphibious transport dock, LPD: These ships are the same as those authorized in the 1963 program. They carry 930 troops and 2,500 tons of cargo and equipment plus 6 helicopters and various combinations of landing craft depending on size. There are operating positions for two helicopters. Ten of these ships have been authorized

in prior programs of which two, *Vancouver* and *Raleigh*, will have joined the fleet by the end of this fiscal year.

One tank landing ship, LST: This is the first of a new class of LST's designed for a sustained speed of 20 knots. It will be able to lift 400 troops, with a full load capacity of 2,100 tons and a normal beaching load of 500 tons. The 22 previously authorized post-World War II LST's vary in speed from 14.5 to 17 knots.

Ten escort ships, DE: The antisubmarine warfare ships in this program are improved versions of the DE in the 1962 and 1963 programs. They would have the most advanced ASW detection devices and weapons now available, a long range and a variable depth sonar along with ASROC and DASH. The design incorporates two major studies, the coordinated ship electronics designed (or CSED) and work study. Briefly, CSED is a program to improve ship's electronics performance by coordinating the design of electronics installation with that of hull and superstructure. Work study is a process by which equipment layouts and installations are engineered with people foremost in mind so that maximum operational and maintenance effectiveness is attained with available manpower and technical skills.

Eighteen post-World War II escorts will have joined the fleet by June 30 of this year.

Two motor gunboats, PGM: These ships are follow-on construction of the two authorized in 1963 insofar as hull and machinery are concerned, but will feature an improved armament installation. These ships will have relatively long endurance, be capable of ocean transit and have a top speed of 40 knots provided by a diesel engine-gas turbine combination.

One combat store ship, AFS: This ship is the third of its class and a repeat of the ones authorized in 1961 and 1962. It is designed to carry a variety of items for fleet support including provisions, general stores, and aviation stores. In addition to the conventional along-side replenishment this ship will carry two cargo helicopters for distant vertical replenishment.

The first two ships of this class, *Mars* and *Sylvania*, will join the fleet in 1964.

One destroyer tender, AD: This is the first destroyer tender of post-World War II design. Its function is to furnish facilities for the repair and support of escort and destroyer type ships, including nuclear frigates. This tender provides the necessary shops and material for the test and overhaul of equipment and the accomplishment of repairs not requiring shipyard facilities.

One surveying ship, AGS: The Department had requested authorization for three surveying ships, one for each of three classes. The committee recommends approval of the medium-sized ship, which would have accommodations for 34 scientists and will be manned by a MSTS crew. This ship will operate primarily in midocean areas, gathering oceanographic environmental information needed to support fleet operations in undersea warfare.

One cargo ship, MSTS roll-on-roll-off: This ship is the second of its class programed by the Navy as part of its responsibility for modernization of the MSTS nucleus fleet. This ship is designed specifically for the transportation of wheeled and tracked vehicles. The prototype roll-on-roll-off is the USNS *Comet*, which normally operates between New York and St. Nazaire in support of U.S. Armed Forces in Europe.

The Navy authorization also provides funds for 203 service and landing craft, the rehabilitation and modernization of 19 World War II destroyers, and the conversion of 2 frigates, 5 destroyers, 1 cargo ship (FBM), 1 mine countermeasures support ship, 3 ammunition ships (FAST), 3 oilers (JUMBO), 1 major communications relay ship, and 1 service craft, a floating drydock.

NAVY AND MARINE CORPS—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

Research, development, test, and evaluation:	
Aircraft and related equipment.....	\$198,083,000
Missiles and related equipment.....	572,433,000
Ships, small craft, and related equipment.....	284,208,000
Total authorization.....	1,054,724,000

The amount requested in authorization of appropriations for research, development, test, and evaluation of aircraft, missiles, and naval vessels was \$1,087,324,000. The committee recommends a reduction of \$32,600,000 in this authorization.

Aircraft and related equipment (budget activity 2), \$198,083,000

This activity finances research, development, and certain costs associated with the test and evaluation of Navy and marine aircraft and their related equipment. Included are developments in the areas of airframes, powerplants, weapon delivery systems, communications, navigation, countermeasures, detection and other airborne electronic systems, flight escape and survival systems, aircraft handling and support equipments, together with aeronautical, scientific, and engineering applications for the advancement of the state of the art. Test and evaluation of aircraft systems financed under this activity include the cost of conducting evaluations at naval activities; the procuring of prototype aircraft; the procuring and testing of newly designed engines; the procuring of initial quantities of newly developed armament, electronic, and related aeronautical equipment for conducting tests both of mechanical reliability and technical suitability; and the procuring of special tools and equipment for contractors engaged in the development, assembly, and checking of systems.

Missiles and related equipment (budget activity 3); \$572,433,000

This activity finances research, development, test, and evaluation costs of Navy and Marine missiles, drone targets, and related equipment for use in the fleet. Missile developments include systems which can be fired from the air, sea, or under the sea at various targets on land, sea, in the air, or under the sea. Test and evaluation of missile systems financed under this activity include the cost of conducting evaluations at naval activities, procuring of initial quantities of newly developed missiles, and the procuring of special tools and equipment used in the development, assembly, and checking of missile systems. Included under this activity are funds for the operation of the Pacific Missile Range. PMR supports many high priority national space and weapon systems for NASA and the DOD agencies.

Ships, small craft, and related equipment (budget activity 5); \$284,208,000

This activity provides for research, development, test, and evaluation of Navy ships and small craft and their components including hull, propulsion and auxiliary machinery, ordnance catapults and

arresting gear, electronics, permanent fittings, and other installed equipment. Electronics includes surveillance (e.g., radar, sonar), communications, navigation, jamming and deception, command control, fire control equipments, and training devices for shipboard systems. The entire spectrum of ships and small craft, from aircraft carriers and POLARIS submarines to landing craft and boats is covered.

DEPARTMENT OF THE AIR FORCE

AIR FORCE—PROCUREMENT

Aircraft-----	\$3,329,000,000
Missiles-----	2,101,200,000
Total-----	5,430,200,000

AIR FORCE AIRCRAFT

The committee recommends a reduction of \$230 million in the \$3,559 million that had been requested in authorization for procurement of 964 Air Force aircraft.

The reduction of 85 aircraft is intended to be applied as follows:

F-4C	(35)
RF-4C	(29)
T-38A	(11)
HC-130E	(10)

In addition, a 3-percent reduction was made in "below the line" items for modifications, spares, common aerospace ground equipment, component improvement, industrial facilities, war consumables, and other charges.

A description of the aircraft to be procured by the Air Force follows:

KC-135 tanker

The KC-135 jet tanker will be procured in two configurations—KC-135A and the special mission RC-135B. The KC-135A is powered by a conventional jet engine while the RC-135B is powered by a fan version.

On May 3, 1960, the Air Force approved the concept of a single tanker force—SAC managed and KC-135 equipped—to provide support for training and combat operations of both Strategic Air Command (SAC) and Tactical Air Command (TAC).

The KC-135A jet tankers requested for fiscal year 1964 will complete the procurement of aircraft required to support this single-managed tanker force. The KC-135 has the capability to refuel both strategic and tactical strike aircraft such as the B-52, B-58, B-47, F-4C, F-105, and F-100.

F-4C

Increased emphasis on conventional war capability and the urgency to modernize the tactical force requires increased quantities of tactical fighters. The F-4C has been selected by the Air Force as the best fighter aircraft available for modernization of the force. It is a twin-engine two-place aircraft to be used by the tactical Air Forces as the primary tactical fighter and is also being procured by the Navy as the F-4B. It is capable of performing air superiority, close support, and interdiction missions using conventional or nuclear munitions.

RF-4C

It is Air Force policy to select the best tactical fighter being procured and adapt it to perform the tactical reconnaissance mission in support of tactical air and Army requirements. This policy is based on sound military requirements which demand maximum operational and logistic flexibility as well as on the similarity of mission, aircraft performance, and worldwide deployment.

The RF-4C can accommodate all the basic equipment essential to the tactical reconnaissance mission, thereby providing a versatile aircraft for the modernization of the tactical reconnaissance forces for both general and limited war. The development program for the reconnaissance subsystem is also oriented to support the Marine Corps RF-4B program.

C-130E

The turboprop C-130E is being procured in additional quantities to modernize and increase the load-carrying capability of both the troop carrier and the air transport fleets. As a transport, it can be configured to carry 92 troops, 64 paratroops, or 70 litter patients. The C-130E can operate from hastily prepared landing sites. This aircraft provides effective support of Army tactical deployments.

C-141

Procurement of the C-141 turbofan-powered transport aircraft was initiated in fiscal year 1963. Its introduction into the military transport fleet over the next several years will provide significant modernization and improved capability. The C-141 will be capable of carrying 63,000 pounds 4,000 nautical miles, and 31,000 pounds 5,500 nautical miles at a speed of over 440 knots. This aircraft will overcome the range and speed limitations of older aircraft currently in the airlift fleet and provide a quick turn-around-loading capability. The wing design and turbofan power will permit this aircraft to operate at maximum gross weight from runways 6,000 feet in length. On short missions, the C-141 will carry a maximum payload of over 70,000 pounds 1,000 nautical miles.

T-37B

The T-37B is a primary jet trainer used to teach primary phase students all techniques and maneuvers required of the military pilot with the exception of ordnance. It is an all-metal, low-wing monoplane with retractable landing gear, side-by-side seating, dual controls, ejection seats, jettisonable canopy, and day and night instruments.

The last procurement of T-37B aircraft for the Air Force was in fiscal year 1960. The fiscal year 1964 quantity is required to support the currently programed pilot training rate.

T-38

The jet supersonic trainer is required to replace the aging T-33. The T-38 will eliminate the disparity in performance that now exists between the T-33 basic pilot trainer and the high-performance combat aircraft.

It is a twin-engine, lightweight aircraft with a maximum speed of 758 knots per hour, has a ceiling of 48,800 feet, and has a range of 1,085 nautical miles.

HC-130E

The HC-130E is a basic C-130E aircraft configured with electronic search equipment and a pickup device that will locate and recover people or materiel from any global surface. This aircraft will replace obsolete HC-54 aircraft that are inadequate in range, speed, endurance, altitude performance and that have no recovery capability. They will be assigned to air rescue squadrons in the continental United States and overseas.

XH-48A (HX-1)

This is an "off the shelf" helicopter, modified for mission requirements, which will be used to provide expedient airlift of critical parts and necessary equipment to remote ICBM sites where it is impractical to develop a landing area for fixed-wing aircraft. It will be configured to accommodate passengers and cargo.

HX-2

The HX-2 is a helicopter of greater performance characteristics and payload capability than the types now in the Air Force rotary-wing inventory. It will provide relatively fast, all-weather, long-range transportation for missions requiring vertical and hover flight operations. It will have an amphibious capability, a sling weight load capacity of 3,000 pounds, or a total payload of 5,000 pounds for a range of 200 nautical miles, or it can carry 26 passengers. It will have a cruising speed of 125 knots.

AIR FORCE MISSILES

An authorization request for the procurement of Air Force missiles in the amount of \$2,177 million has been reduced by \$75,800,000. This reduction is to be achieved by a 3-percent decrease in the amounts programed for modification and spares support, in addition to a slight stretchout in the MINUTEMAN procurement.

A general description of the missiles in the Air Force program follows.

ATLAS

The ATLAS D, employing a radio guidance system entered the operational inventory in August 1959. The ATLAS E and F use an inertial guidance system and are dispersed in hardened launchers. The ATLAS E is stored horizontally in a semihard coffin which is erected to a vertical position for firing. The ATLAS F is stored vertically in a silo and is raised to the surface for firing by an elevator launcher. Production of the ATLAS missile for inventory was completed during the current year and the last ATLAS F squadron became operational in December 1962.

TITAN

There are two versions of the TITAN missile. The TITAN I is a two-stage missile using conventional fuel. The missile is stored in a silo and raised by an elevator launcher to the surface for firing. All squadrons are now operational. The TITAN II is stored and fired from the silo. It is fueled with storable noncryogenic fuel. The TITAN II has the largest payload capacity of the ICBM's with a greatly improved reaction time.

AUTHORIZATIONS FOR AIRCRAFT, MISSILES, NAVAL VESSELS 21

MINUTEMAN

The MINUTEMAN is a three-stage, solid-propellant missile which is fired from underground silos by remote control. It is designed to be a simple, relatively inexpensive, and accurate ballistic missile. This missile has had an extremely successful test program and has met all major program schedules in both development and production. In October 1962, the first flight entered the operational inventory.

BULLPUP

The BULLPUP (GAM-83A) is an air-to-surface missile employed by the Navy, Air Force, and Marine Corps for the destruction of selected ground targets. This missile is used by the Air Force on the F-100, F-105, and F-4C tactical fighters. It is 10½ feet long, 1 foot in diameter, and weighs less than 600 pounds.

BULLPUP trainer

This missile is similar to the operational BULLPUP except for a dummy warhead. It will provide pilot training in delivering the operational missile.

SHRIKE

The SHRIKE is an air-to-surface missile that seeks out enemy weapon systems for destruction.

GAR-2B FALCON

This air-to-air missile is an improved version of the GAR-2A, guided by an infrared target seeker, and carried by the F-102 aircraft. The missile is approximately 6½ feet in length and weighs 134 pounds.

SPARROW

The SPARROW is an air-to-air solid-propellant rocket with a semiactive radar guidance system. The SPARROW will be used exclusively on the F-4C, providing this weapon system with an all weather air superiority capability. The missile weighs 400 pounds and is 12 feet long and 8 inches in diameter.

Q-2C DRONE (FIREBEE)

This recoverable target drone is required to test weapon systems which use surface-to-air and air-to-air missiles and for the evaluation of operational units equipped with these systems. The missile is almost 23 feet long and weighs 2,150 pounds.

AIR FORCE—RESEARCH, DEVELOPMENT, TEST AND EVALUATION

	AIR FORCE AIRCRAFT	
Aircraft.....		\$676, 986, 000
Missiles.....		1, 028, 332, 000
Total.....		1, 705, 318, 000

AIR FORCE AIRCRAFT (R.D.T. & E.)

A reduction of 3 percent is recommended in the \$322,986,000 that had been requested for Air Force research and development on aircraft. To the resulting amount of \$313,286,000 the committee has added \$363,700,000 for use only in the further development of the RS-70 weapon system. This addition is discussed elsewhere in the

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report. Similarly, the reduction of 3 percent, or \$31,800,000, was made in the \$1,060,132,000 that was requested for research and development on Air Force missiles.

A description of the Air Force programs for research, development, test, and evaluation of aircraft and missiles follows.

F-111 advanced tactical fighter

The F-111 (TFX) program is a joint undertaking by the Air Force and the Navy that is designed to produce an advanced tactical fighter for use by both services. The Air Force version will be a multiple purpose aircraft capable of a wide range of tactical air missions in both a general and limited war. The fiscal year 1964 program will provide for continued development including fabrication of airframe structural components and subsystem items for inclusion in the test aircraft.

C-141A cargo transport aircraft

The C-141A is a four-engine (turbofan) all-weather cargo transport aircraft equipped for delivery of material or personnel, or both, over intercontinental ranges employing normal off-loading or aerial delivery. It will provide great tactical flexibility with its ease of loading, self-sufficient ground operations capability, and air drop capability. The C-141A will be assigned to the Military Air Transport Service (MATS) in air transport and troop carrier squadrons for performance of DOD airlift missions supporting national objectives. The fiscal year 1964 program will complete fabrication of five test aircraft. This will begin the joint flight test program leading to military qualification and civil certification.

VTOL aircraft

This program is shared by the Army, Navy, and Air Force. It consists of the development of three types, two managed by the Air Force, and one by the Navy. The Air Force programs are the tilt-wing aircraft, and the tilt-propeller, fixed-wing type. The Navy program involves a ducted fan aircraft.

Other R.D.T. & E. (aircraft)

The aircraft program also includes exploratory development efforts in aircraft flight dynamics, a laminar flow control demonstration, initial testing of a demonstrator lightweight turbojet engine, fabrication and testing of low-altitude guidance equipment, flight demonstration of reconnaissance-strike subsystems at various altitudes and speeds, correction of operational deficiencies, and modernization of inservice equipment with particular emphasis on tactical reconnaissance and aerial delivery developments, and participation in development and evaluation of a few foreign V/STOL developments in addition to U.S. efforts.

AIR FORCE MISSILES (R.D.T. & E.)

ATLAS

The ATLAS missile development will involve only the F configuration. The ATLAS F is inertially guided and is deployed in a hard environment with silo lift. The fiscal year 1964 program will complete system development, test, and evaluation.

TITAN

The TITAN missile development will involve the TITAN II, and all inertially guided missile using silo launch and storable propellants. The fiscal year 1964 program will complete system development, test, and evaluation.

MINUTEMAN

The MINUTEMAN missile being developed is a three-stage solid propellant ICBM with inertial guidance and a nuclear warhead. It will be employed in silos hardened to withstand heavy overpressures. The fiscal year 1964 program provides for (1) continued research and development test, (2) development of a new second stage engine, and (3) development of an improved guidance system for the improved MINUTEMAN missile.

ADVANCED ICBM

This is an integrated program to investigate technological and operational concepts for ballistic missiles. The fiscal year 1964 program will continue the efforts started in fiscal year 1963.

Mobile midrange ballistic missile (MMRBM)

The MMRBM being developed is a two-stage solid-propellant missile capable of deployment on primary and secondary roads in European and NATO countries. The system will provide theater commanders with an all-weather, quick reaction survival capability in carrying out their assigned mission. The fiscal year 1964 program will provide continued development and test of subsystems and components.

Advanced ballistic reentry system (ABRES)

The objective of this ABRES program is to produce the knowledge and techniques for building systems capable of penetrating enemy defenses. The ABRES program provides for development of new reentry systems and the technical improvement of current reentry vehicles. The fiscal year 1964 program provides for continued systems analysis, advanced reentry technology for increasing the size of the technological base, and work to develop new penetrating systems for various ballistic missiles.

Other R.D.T. & E. (missiles)

The missile program also includes exploratory development efforts in nuclear weapons components and weapons effects, rocket propulsion, and electromagnetics, feasibility investigations of low-altitude supersonic vehicles, continued advanced development of stellar inertial guidance systems, special targets for NIKE-ZEUS test, and a testing of high-energy solid-rocket motor. In addition support is provided for Atlantic Missile Range operation and maintenance, and for space technology laboratories who furnish engineering and technical direction services for the ATLAS, TITAN, and MINUTEMAN ballistic missile programs.

REPROGRAMING

The authorization of appropriations contained in the bill is of the lump-sum type. The amounts allocated to specific aircraft and missiles within the authorization are not identified. Despite the absence

of a line-item-type authorization, the committee considers that the Department of Defense is committed to the program justified to the committee, unless the committee is appropriately advised under the reprogramming procedures already in effect. Under these procedures the committee is notified and has an opportunity to express objection before the Department applies substantial funds in a manner different from the one presented to the committee. This reprogramming procedure will be extended to the authorization for research, development, test, and evaluation of aircraft, missiles, and naval vessels.

As in the past, the committee does not intend the authorization or the reprogramming procedure to inhibit the power of the Secretary of Defense to transfer funds that are contained in defense appropriations acts or to inhibit his application of the emergency funds provided in such acts.

COST

Appropriations based upon the authorization contained in this measure would involve the expenditure of \$15,147,491,000.

DEPARTMENTAL RECOMMENDATION

Printed below and hereby made a part of this report is a letter from the Secretary of Defense dated January 17, 1963, indicating that this bill is a part of the legislative program of the Department of Defense and that its enactment would be in accord with the program of the President.

The extent to which the bill departs from the recommendations of the executive branch has been explained earlier in the report.

THE SECRETARY OF DEFENSE,
Washington, January 17, 1963.

HON. LYNDON B. JOHNSON,
President of the Senate.

DEAR MR. PRESIDENT: There is forwarded herewith a draft of proposed legislation to authorize appropriations during fiscal year 1964 for procurement, research, development, test, and evaluation of aircraft, missiles, and naval vessels for the Armed Forces, and for other purposes. This proposal is a part of the Department of Defense legislative program for the 88th Congress and the Bureau of the Budget has advised that enactment of the proposal would be in accord with the program of the President.

The proposal provides authorization of appropriation for defense programs for fiscal year 1964 in two major areas. It includes authorization of appropriation for the procurement of aircraft, missiles, and naval vessels in form identical to previous enactments of the fund authorizations required pursuant to section 412(b) of Public Law 86-149, as initially approved August 10, 1959. It also includes a similar authorization of appropriations for the research, development, test, and evaluation of aircraft, missiles, and naval vessels as required for the first time by the amendment to section 412(b) contained in Public Law 87-436, approved April 27, 1962.

PROCUREMENT

As in the case of previous legislation, this proposal would provide for the authorization of appropriations for procurement in each of the categories of aircraft, missiles, and naval vessels for each of the military departments in the amount of the new obligational authority being requested for such purposes in the President's budget for fiscal year 1964. The amounts requested for fund authorization have been developed on the same basis, as, and are comparable to, the amounts for which fund authorizations for procurement were granted in fiscal year 1963.

For ready reference, there is attached hereto a table showing, by category and by service: (1) the amounts authorized for fiscal year 1963; (2) amounts appropriated for fiscal year 1963; and (3) the amounts requested for fund authorization for fiscal year 1964.

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

As in the case of procurement, there is general authorization in permanent law for each of the military departments to conduct research, development, test, and evaluation activities. The basic provisions are: 10 U.S.C. 4503 for the Army; 10 U.S.C. 5150-5151 for the Navy; and 10 U.S.C. 9503 for the Air Force. Accordingly, this legislation is responsive only to the requirement of section 412(b) for authorization of funds to conduct these programs after December 31, 1962. The proposal would provide such fund authorization for research, development, test, and evaluation of aircraft, missiles, and naval vessels for each department and in each category in amounts equal to the new obligational authority included in the President's budget for fiscal year 1964 for such purposes. These amounts correspond to the amounts included in the estimates for the major subdivisions (budget activities) of the research, development, test, and evaluation appropriations for each of the categories. The budget activities are uniformly classified for each of the military departments under the headings "Aircraft and related equipment"—budget activity 2; "Missiles and related equipment"—budget activity 3; and "Ships, small craft, and related equipment"—budget activity 5, and consist of a uniform grouping of the so-called line item budget subactivities. The line item budget subactivities are in turn identical to each of the program elements of the research, development, test, and evaluation programs of the military departments and form the basis upon which the programs are executed and related funds are administered.

In the opinion of the Department of Defense, fund authorization in terms of these budget categories will not only permit the continuation of program execution and fund administration on the current basis, but is also in accord with the expressed desires of the Congress to review and exercise its legislative responsibility over research, development, test, and evaluation activity which may ultimately involve the fabrication of prototypes of operational systems.

REPROGRAMMING

In originating the amendment requiring fund authorization for research, development, test, and evaluation of aircraft, missiles, and naval vessels, the Senate Armed Services Committee stated in its report (S. Rept. No. 1315, 87th Cong., Apr. 2, 1962, p. 3) in pertinent part as follows:

"The committee believes that the experience to date under the relatively new procedure requiring authorization of appropriations for procurement of aircraft, missiles, and naval vessels is such that there should be no concern about an extension of this procedure into research and development. When the authorization procedure was instituted doubts were expressed in some quarters about its practicality and there was some alarm that the procedure could result in conflicts and troublesome restrictions. These problems simply have not materialized and the committee believes the procedure has proved constructive."

The most significant factor in the elimination of conflicts and troublesome restrictions under previous authorization legislation of this type was the adoption by the committees of the procedure that had previously been worked out with the appropriations committees known as reprogramming. The principles and basic justification for this procedure were well stated by the House Armed Services Committee in its report on funded authorization legislation for fiscal year 1963 (H. Rept. No. 1406, 87th Cong., Mar. 7, 1962, p. 10):

"Prior to last year, the Congress had provided a generalized authorization, on a continuing basis, for the major procurement programs of the Department of Defense. Each annual appropriation act has provided funds in general terms for these major procurement programs on the basis of a detailed justification to the committees covering in detail all of the major items. During the period in which these major defense programs are administered, it is necessary to increase or decrease amounts originally justified to the Congress for application to given line items, and to make changes in programs, in order to accommodate changes in requirements. Under the existing procedures for this reprogramming, appropriate notice to, or consultation with, the committees has been provided. This procedure for authorization and appropriation has provided urgently needed responsiveness to swiftly changing requirements resulting from both technological breakthroughs and varying threats."

The Senate Committee on Armed Services has also indicated its adoption and support of the principles and related procedures in Senate Report No. 253, 87th Congress, May 11, 1961, page 3.

Past experience in the application of the procedure to the various areas of defense programs has indicated that, while the principles should be maintained, the procedures, of necessity, must vary with the nature of the programs; for instance, procurement programs are stated generally in terms of physical line items and associated dollars, whereas, research, development, test, and evaluation programs consist primarily of level of effort, measured in dollars, directed at less finite objectives. Such distinctions should be recognized in working out the adaptation of the principle of reprogramming to research, development, test, and evaluation.

Another important factor in facilitating the administration of the major defense programs under legislation of this type was the clear recognition by the committees of existing appropriation and fund flexibility available to the Department of Defense under the Defense Appropriation Acts as stated by the House Armed Services Committee in its report (House Rept. 380, 87th Cong., May 10, 1961, p. 10).

"While the amounts authorized to be appropriated will constitute ceilings on appropriations which can be made for the procurement of aircraft, missiles, and naval vessels, the committee wishes to make clear that the programs, which such appropriations finance, can also be financed in part by the application of other available funds, such as reimbursements or unused prior year funds. Similarly, should the necessity arise, funds appropriated under these authorizations may be applied to the completion of prior year programs for the same general purposes.

"The committee does not intend that such reasonable degree of transfer authority as the Committees on Appropriations may wish to recommend be inhibited or precluded by these authorizations. We have in mind, for example, the customary transfer provisions in the language of the emergency fund appropriation and similar provisions in section 535 of the 1961 appropriation act. Such provisions are essential to permit the Department promptly to take advantage of technological and other developments."

Likewise, the Senate committee recognized the importance of maintaining such flexibility in its report (Senate Rept. 253, 87th Cong., May 11, 1961, p. 3) as follows:

"The committee is aware of provisions in the Department of Defense Appropriations Acts that confer transfer authority and flexibility on the Secretary of Defense in expediting certain programs. The committee does not intend that this authorization inhibit the transfer authority contained in the emergency fund appropriation to the Secretary of Defense, or in such provisions as section 535 of the Department of Defense Appropriations Act for 1961. These provisions are essential to permit the Department to take advantage of technological breakthroughs."

In support of the legislation, the Committee on Armed Services will be furnished, as in the past, detailed information with respect to each program for which fund authorization is being requested in a form identical to that being submitted in explanation and justification of the budget request. Additionally, the military departments will be prepared to submit any other data that the committees or their staffs may require.

It is, of course, assumed that the Armed Services Committees, as in the past, will desire that top civilian and military officials of the Department of Defense be prepared to make presentations covering the strategic objectives and plans for the ensuing year, including those necessitating development of these major defense programs and of the request for funds for their support.

Sincerely,

ROBERT S. McNAMARA.

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